

74. The method of claim 73, wherein transmitting sensor data further comprises transmitting biological sensor data.

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75. The method of claim 73, wherein transmitting sensor data further comprises transmitting environmental sensor data.

REMARKS

I. INTRODUCTION

In response to the Office Action of October 23, 2002, Applicants have amended claims 1, 6, 8, 23, 27, 39, 42, 43, 50, 51, 55, 57-63, 65, and 70-72. Claims 7 and 8 have been cancelled without prejudice. Claims 1-6, 8-27, and 29-75 are in the application. Reconsideration and reexamination of the application, as amended, is requested.

II. REJECTION UNDER 35 U.S.C. § 112, ¶ 1

A. Office Action Rejection

In page 2 of the Office Action, claims 23, 29 and 61 were rejected under 35 U.S.C. § 112, ¶ 1 as containing subject matter that was not described in the specification to enable one skilled in the art to make or use the invention. Applicants respectfully traverse the rejection.

The Office action merely briefly refers to one limitation in one claim. Specifically, the Office action appears to state the "the data interface unit" recited in claim 39 is not disclosed in the specification to enable one skilled in the art to make and/or use the invention. Accordingly, the basis of the rejection of claims 23, 39, and 61 is not clear.

However, Applicants submit an amendment to claim 39 and the following remarks to expedite prosecution of the application.

B. The Section 112, ¶ 1 Rejection is Not Applicable to Claim 23

Initially, Applicants note that claim 23 does not recite a "data interface unit" as discussed in the Office action. Accordingly, Applicants respectfully request that the rejection of claim 23 be withdrawn since the Office action does not provide any other basis for rejecting claim 23 under section 112, ¶ 1.

C. Person of Ordinary Skill in the Art Would be Enabled to Make And/Or Use a User Interface Unit as Recited in the Amended Claims

A specification meets the enablement requirement since a person skilled in the art can make and use the invention without undue experimentation. A patent need not teach, and preferably omits, what is well known in the art. MPEP 2164.01.

Regarding claims 39 and 61, Applicants respectfully submit that a person skilled in the art would be enabled to make and/or use a "data interface unit" (which is well known in the art) as recited in these claims, the details of which are preferably omitted from the specification. For example, the term "data" can generally refer to any form of information whether on paper or in electronic form. Data may refer to any electronic file no matter what the format: database data, text, images, audio and video. An "interface" is commonly known as a connection and

interaction between hardware, software and the user and "user interfaces" are keyboards, mice, commands and menus used for communication between [a user] and a computer or interaction between the user and the computer.

The term "data interface unit" was recited in the specification and claims to refer to such user interfaces for various types of data, as discussed throughout the specification and the substitute specification submitted with the Preliminary Amendment. However, to expedite prosecution of the subject application, the claims have been amended to refer to "user interface unit" rather than "data interface unit." Considering that user interfaces generally are well known to persons skilled in the art, the claims are supported by the specification, and the specification describes the manner in which such user interfaces are components of a wireless communications system for routing various types of data, e.g., video, display, audio and control data, through a network such that a person of ordinary skill in the art could make and/or use the invention.

Accordingly, Applicants respectfully request that the rejection of claims 39 and 61 also be withdrawn.

III. REJECTIONS UNDER 35 U.S.C. §112, ¶ 2

In page 2 of the Office Action, claim 1 was rejected under 35 U.S.C. §112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. However, the Office action does not explain why claim 1 is indefinite. Rather, the Office action merely recites the limitations of claim 1.

However, to expedite prosecution of the application, Applicants submit an amendment to claim 1. The preamble of claim 1 has been amended to recite "A wireless communication system" and "a network" was added as a separate limitation in claim 1. Claim 1 also contains proper antecedent basis. Based on the foregoing, Applicants respectfully submit that amended claim 1 particularly points out and distinctly claims the subject matter that Applicants regard as the invention and respectfully request that the rejection be withdrawn.

IV. REJECTIONS UNDER 35 U.S.C. §103(a)

A. The Office Action Rejection

In pages 2-10 of the Office Action, claims 1-75 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,844,824 to Newman et al. ("Newman") in view of U.S. Patent No. 5,926,624 to Katz et al. ("Katz"). The Applicants respectfully traverse the rejection. However, to expedite prosecution, Applicants have amended selected claims and offer the following remarks.

B. Independent Claims 39 and 61 Are Patentable Over Newman In View Of Katz

The subject application is generally directed to a system that provides hands-free access and display of network resources, such as video, audio and data. A user issues commands and receives various types of data (e.g., audio, video, camera, etc.) through an individual portable access unit (PAU) or user interface unit. The PAU can be a pager-like device or a wearable headset that communicates with a general purpose node or routing node through a

wireless link. The PAU includes an encoder and decoder or "codec" and a transceiver, and the routing node also includes a transceiver. Thus, a PAU and routing node can communicate with each other, and the PAU can format, multiplex and compress the outgoing data or commands using the codec as needed. The routing node establishes a connection with a network (e.g., Internet, Local Area Network (LAN) or Wide Area Network (WAN)) and routes a command over the network to a requested media or network device such as a processor, camera, etc. The media device executes the command and generates a result or other data. The result or data is transferred back over the network, through the routing node, and to the PAU over the wireless link. The PAU formats, demultiplexes and decompresses the incoming data as needed. Thus, the routing node acts as an intermediate router between a PAU and a media device which executes commands and generates requested results or data, and the PAU serves as a user interface to submit commands and receive data. As a result, execution or processing of the user commands is removed from a portable device to more efficient processing components.

The Newman patent, in contrast, is generally directed to a self-contained, hands-free computing apparatus. Specifically, the apparatus disclosed in the Newman patent includes a housing, which may or may not be attached to a user. The housing includes storage means for storing previously entered information and programs. The housing also includes processing means, such as a central processing unit (CPU) or microprocessor, for receiving, retrieving and processing information and user commands in accordance with a stored program. col. 2, lines 24-40;

col. 11, lines 58-64; col. 12, lines 48-62; Fig. 2 (CPU 204 in computer 102 worn by a user). The apparatus disclosed in Newman is used to download technical manual data from a database to the computing apparatus. Access and transfer of data between the storage means and the computing apparatus can be accomplished entirely under control of various hands-free activation means. col. 2, lines 37-46. An access port allows direct electrical attachment to the storage means, however, other wired and wireless connections as also used. col. 2, lines 46-48.

The Newman patent also describes communications between headsets, and between headsets and a host computer. Col. 7, lines 38-40. The patent also describes wireless headset to host computer and wireless several headsets to a host computer communications. Col. 8, lines 1-32. The patent further describes wireless communication to other remote hosts with radio frequency or cellular telephone links. Data is returned back through the host computer over the wireless link, then to the headset. Col. 8, lines 41-67. A processor or CPU in the headset receives, retrieves and processes information and user commands in accordance with a stored program, as previously explained. See, e.g., col. 2, lines 32-37; col. 7, lines 64-67.

To establish prima facie obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. MPEP 2143.03; *In re Royka*, 490 F.2d 981 (CCPA 1974). The Newman patent, however, fails to disclose, teach or suggest a number of aspects of Applicants' independent claims 39, 1, 23 and 61.

As pointed out by the Examiner, the Newman patent fails to disclose or suggest the claimed routing node and media device limitations.

Further, the Newman patent does not disclose or suggest a media device configured to execute a command separate from a portable access unit or portable interface unit as recited in the claims. In contrast, the Newman patent explains that the processor means in the headset portion of the apparatus is used to receive, retrieve and process information and user commands. Col. 2, lines 32-36; col. 7, line 64 - col. 9, line 8.

Moreover, the Newman patent fails to disclose or suggest the general component connections and communications recited in the claims. For example, claim 39 calls for a portable interface unit, a routing node or general purpose node, a network, and a media device configured such that the routing node establishes a connection with the media device which is coupled to the network. Rather, the Newman patent discloses communications between a headset and a host computer.

The Katz patent does not cure the deficiencies of the Newman patent. The Katz patent is directed to a digital library system in which data stored in a library server is retrieved and sent to a mobile playback device through a client computer in a secure manner. Specifically, the mobile playback device 212 includes a processor, memory, and an interface to the client computer 214. col. 10, lines 14-18. The mobile device 212 is removably connectable to the client computer, e.g., through wireless means. col. 3, line 66 - col. 4, line 5. The client computer 214 is a consumer or end computer system, typically a personal

computer with which a consumer may browse and take delivery of digital information content from the library server 260 across network 240 (which can be an electrical or wireless connection). col. 5, lines 1-8; col. 9, lines 14-20. A user enters a request for data, and through the user of authenticating identifiers, data is retrieved from the library server over the network and downloaded to the mobile device 212 through the client computer. The network connection between the client computer and library server can be a wireless connection. Once downloaded, the mobile device 212 can be detached from the client computer 214. col. 5, lines 29-30.

The Katz patent also fails to disclose or suggest a number of aspects of Applicant's claims. For example, the Katz patent fails to disclose a portable interface unit being secured to a user, having a display, an encoder, a decoder, or a transceiver. Instead, the Katz patent merely refers to a mobile playback device which is temporarily removably coupled to a client computer (but not a user).

Further, the Katz patent does not disclose or suggest a routing node, much less a routing node having a transceiver configured to receive the command transmitted by the transceiver of the interface unit through a wireless connection. Rather, the Katz patent merely discloses a client computer, i.e., a consumer or end user computer system, in communication with a library server. See, e.g., col. 9, lines 14-20.

The Katz patent also does not disclose or suggest a media device configured to execute a command separate from a portable access unit or portable interface unit. In contrast, the Katz patent explains that the mobile playback

device includes a processor memory, and an interface to client computer system. Col. 10, lines 14-17.

Accordingly, each of the Newman and Katz patents fails to disclose or suggest a number of aspects of Applicants' claims. Consequently, the combination of the Newman and Katz patents does not form the claimed invention.

Moreover, the Newman patent teaches away from a media device (as compared to a portable access unit or portable interface unit) "configured to execute the user commands separate from the portable access unit." For example, the Newman patent provides "housing further includes . . . processor means, communicating with the storage means, for receiving, retrieving and processing information and user commands in accordance with a stored program." Col. 2, lines 32-37. See, also, col. 1, lines 4-9 ("hands-free portable computer" or "mobile computer"); col. 2, line 38 ("self-contained computing apparatus").

Accordingly, there is no motivation to combine the Newman and Katz references considering their different configurations and users and that the references teach away from selected claimed features.

Based on the foregoing, the Newman and Katz patents, alone or in combination, do not disclose or suggest all of the limitations of Applicants' claims. Thus, Applicants respectfully submit that independent claims 1, 23, 39 and 61 are allowable and that the rejection under 35 U.S.C. § 103(a) be withdrawn. Further, Applicants respectfully submit that dependent claims 2-6, 8-22, 24-27, 29-38, 40-60, and 62-75, which depend from their respective independent claims 1, 23, 39 and 61 are also allowable since these dependent claims recite further novel and

nonobvious limitations and incorporate all of the limitations of their respective independent claims.

Thus, Applicants respectfully request that the rejection of the claims under 35 U.S.C. § 103(a) be withdrawn.

VI. CONCLUSION

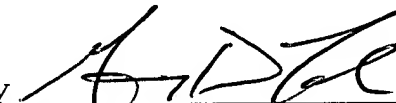
Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made."

In view of the foregoing, Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

1. (Twice Amended) A wireless communication system ~~for communicating through a network~~, comprising:

a network;

a general purpose node electrically connected to the network for providing access through the network, the general purpose node having a wireless communication device;

at least one media device connected to the network; and

a portable access unit capable of wirelessly communicating with the general purpose node through the wireless communications device for communicating with the media device through the network,

wherein a user command from the portable access unit is executed by the media device separate from the portable access unit.

6. (Amended) The system of claim 1, wherein the media device comprises a processor.

8. (Amended) The system of claim 76, wherein the processor is for providing commands for controlling remotely controllable hardware.

23. (Twice Amended) A method for communicating through a network with at least one media device connected to the network, comprising:

providing access to the network with a general purpose node electrically connected to the network, the general purpose node having a wireless communication device; and

communicating wirelessly with the remote media device through the general purpose node and the network with a portable access unit that is in wireless communication with the general purpose node;

transmitting a user command from the portable access unit to the media device for controlling the media device; and

executing the user command with a media device separate from the portable access unit.

27. (Twice Amended) The method of claim 23, further comprising receiving audio signals captured by the remote media device ~~from the remote media device~~ for presenting on the portable access unit.

39. (Amended) A wireless communications interface system, comprising:

a portable ~~data~~ user interface unit secured to a user and having a display, an encoder, a decoder, and a transceiver, said encoder configured to receive a user command and format ~~the~~ said user command for transmission by said transceiver over a wireless connection;

a network;

a routing node having a transceiver configured to receive ~~the~~ said user command transmitted by said transceiver of said ~~data~~ user interface unit through said

wireless connection, wherein said routing node establishes a connection to said network; and

a media device coupled to said network, wherein said routing node transmits ~~the~~ said user command to said media device over said network using said routing node transceiver,

said media device executes ~~the~~ said user command separate from ~~the portable access~~ said user interface unit to generate a result,

said routing node directs the result from said ~~network~~ media device, over said network, to said decoder of said ~~data~~ user interface unit through said routing node over said wireless connection using said routing node transceiver, and

said decoder is configured to format the result for presentation to the user with said ~~data~~ user interface unit display.

42. (Amended) The interface system of claim 39, wherein said encoder formats ~~the~~ said user command by compressing said user ~~the~~ command.

43. (Amended) The interface system of claim 39, wherein said encoder formats ~~the~~ said user command by multiplexing ~~the~~ said user command.

50. (Amended) The interface system of claim 39, further comprising one or more additional portable ~~data~~ user interface units, each of said additional data interface units being associated with said routing node

through respective transceivers over said wireless connection.

51. (Amended) The interface system of claim 50, wherein ~~said~~ one of the ~~data~~ said user interface units displays a list of the other said ~~data~~ user interface units associated with said routing node.

55. (Amended) The interface system of claim 39, wherein said media device comprises a camera for providing video signals over said network, through said routing node, for display on said portable ~~data~~ user interface unit.

57. (Amended) The interface system of claim 39, wherein said media device comprises a display for receiving video signals transmitted from said portable ~~data~~ user interface unit, through said routing node, and over said network to said display for presentation on said display.

58. (Amended) The interface system of claim 39, wherein said media device comprises a speaker for receiving audio signals transmitted from said portable ~~data~~ user interface unit, through said routing node, over said network, and to said speaker for presenting sound based on the audio signals.

59. (Amended) The interface system of claim 39, said portable ~~data~~ user interface unit further comprising a speaker, wherein said media device comprises a microphone for transmitting audio signals over said network, through said routing node, and to said speaker of said portable

~~data~~ user interface unit for presenting sound based on the audio signals.

60. (Amended) The interface system of claim 39, further comprising one or more additional media devices, wherein a media device is selected by a user, and ~~the~~ said user command is transmitted from said portable access unit and through said routing node which routes ~~the~~ said user command over said network to said selected media device.

61. (Amended) A method of communicating data over a wireless network and displaying the data on a portable ~~data~~ user interface unit, the ~~data~~ user interface unit being secured to a user and having a display, an encoder, a decoder, and a transceiver, the ~~data~~ user interface unit being associated with a routing node that is linked to a media device through a network connection, the method comprising:

receiving a command from the user;

formatting ~~the~~ said user command with said encoder into a format suitable for transmission by said transceiver of said ~~data~~ user interface unit over said wireless connection;

transmitting said formatted user command from said transceiver to said routing node over said wireless connection;

receiving said transmitted user command from said transceiver, over said wireless connection, and into a transceiver of said routing node;

routing ~~the~~ said user command with said routing node to said network device over said network; and

executing ~~the~~ said user command with said ~~network~~ media device to generate a result,

wherein routing and executing ~~the~~ said user command are performed separately from said ~~data~~ user interface unit.

62. (Amended) The method of claim 61, wherein formatting ~~the~~ said user command with said encoder further comprises compressing ~~the~~ said user command.

63. (Amended) The method of claim 61, wherein formatting ~~the instruction~~ said user command with said encoder further comprises multiplexing ~~the~~ said user command.

65. (Amended) The method of claim 64, further comprising routing the result to said decoder of said ~~data~~ user interface unit over said wireless connection through respective transceivers.

70. (Amended) The method of claim 61, wherein routing ~~the~~ said user command over said network further comprises routing ~~the~~ said user command over a Local Area Network (LAN).

71. (Amended) The method of claim 61, wherein routing ~~the~~ said user command over said network further comprises routing ~~the~~ said user command over a Remote Local Area Network (RLAN).

72. (Amended) The method of claim 61, wherein routing ~~the~~ said user command over said network further comprises routing ~~the~~ said user command over a Wide Area Network (WAN).

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